reacts, little, if any increase in spending will occur as a result of would-be stimulative tax policy. The MEG aggressive Fed response simulation assumes the Federal Reserve Board completely counteracts demand stimulus; the MEG neutral Fed response simulation assumes the Federal Reserve Board ignores the stimulus; and the GI simulation assumes the Federal Reserve Board partially counteracts demand stimulus. The OLG simulations have no monetary sector because they assume demand automatically adjusts to supply through market forces.

(B) SIMULATION RESULTS

Economic Growth.—

TABLE 1.—EFFECTS ON NOMINAL GROSS DOMESTIC PRODUCT PERCENT CHANGE IN NOMINAL GDP

	Calendar years	
	2003–08	2009–13
Neoclassical Growth Model:		
MEG—aggressive Fed reaction	0.3	0.2
MEG—neutral Fed reaction	0.9	1.0
Econometric Model:		
GI Fed Taylor reaction function	1.5	1.2
Life Cycle Model With Forward Looking Behavior:		
OLG Reduced Government Spending in 2014	n.a.	n.a.
OLG Increased Taxes in 2014	n.a.	n.a.

TABLE 2.—EFFECTS ON REAL GROSS DOMESTIC PRODUCT PERCENT CHANGE IN NOMINAL GDP

	Calendar years	
	2003–08	2009–13
Neoclassical Growth Model:		
MEG—aggressive Fed reaction	0.2	−0.1
MEG—neutral Fed reaction	0.3	0.0
Econometric Model:		
GI Fed Taylor reaction function	0.9	−0.1
Life Cycle Model With Forward Looking Behavior:		
OLG Reduced Government Spending in 2014	0.2	−0.1
OLG Increased Taxes in 2014	0.2	−0.2

As shown in Table 1, depending on the assumed Federal Reserve Board reaction to the policy, the estimated change in Gross Domestic Product (''GDP'') due to this proposal can range at least from a 0.3 percent (an average of $43 billion) to a 1.5 percent (an average of $183 billion) increase in nominal, or current dollar GDP over the first five years, and 0.2 percent to a 1.2 percent increase over the second five years. As shown on Table 2, depending on the assumed Federal Reserve Board reaction to the policy, and on how much taxpayers anticipate and plan for the effects of future Federal government deficits, the change in real (inflation-adjusted) GDP due to those proposal can range from a 0.2 percent (an average of $18 billion per year) to a 0.9 percent (an average of $76 billion per year) increase in real GDP over the first five years, with a small decrease over the second five years.

Investment.—

TABLE 3.—EFFECTS ON CAPITAL STOCK

	Calendar years	
	2003–08	2009–13
Percent Change in Non-Residential Capital Stock		
Neoclassical Growth Model:		
MEG—aggressive Fed reaction	0.6	0.4
MEG—neutral Fed reaction	0.8	0.6
Econometric Model:		
GI Fed Taylor reaction function	1.5	0.4
Life Cycle Model With Forward Looking Behavior:		
OLG Reduced Government Spending in 2014	0.1	−0.7
OLG Increased Taxes in 2014	0.1	−0.8
Percent Change in Residential Housing Stock		
Neoclassical Growth Model:		
MEG—aggressive Fed reaction	−1.0	−1.5
MEG—neutral Fed reaction	−0.8	−1.1
Econometric Model:		
GI Fed Taylor reaction function	−0.5	−1.3
Life Cycle Model With Forward Looking Behavior:		
OLG Reduced Government Spending in 2014	−0.2	−0.1
OLG Increased Taxes in 2014	−0.2	−0.1

As the results in Table 3 indicate, this policy may increase investment in non-residential capital in the first five years by 0.1 percent to 1.5 percent, while reducing investment in residential capital by −0.2 percent to −1.0 percent because of the reduced cost of capital, which is due to the reduction in taxation of dividends and capital gains, and the temporary bonus depreciation. The investment incentives for producers' equipment in this proposal are likely to shift some investment from housing to other capital. The size of the shift differs between the simulations because of different assumptions about adjustment costs and savings responses. In the second five years, the sunset of the bonus depreciation provision, combined with the negative effects of crowding out will slow increases in private nonresidential investment. The simulations indicate that eventually the effects of the increasing deficit will outweigh the positive effects of the tax policy, and the build up of private nonresidential capital stock will likely decline.

Labor Supply and Employment.—

TABLE 4.—EFFECTS ON EMPLOYMENT PERCENT CHANGE IN EMPLOYMENT

	Calendar years	
	2003–08	2009–12
Neoclassical Growth Model:		
MEG—aggressive Fed reaction	0.2	0.0
MED—neutral Fed reaction	0.4	−0.1
Econometric Model:		
GI Fed Taylor reaction function	0.8	−0.4
Life Cycle Model With Forward Looking Behavior:		
OLG Reduced Government Spending in 2014	0.2	−0.1
OLG Increased Taxes in 2014	0.2	−0.1

As shown in Table 4, employment may increase from 0.2 percent (approximately 230,000 new jobs) to 0.8 percent (about 900,000 new jobs) in the first five years, as the effects of the acceleration of individual rate cuts, and the initial increase in investment prevail. Employment increases in the first five years because of both the positive labor supply incentive from the individual rate cuts, and the economic stimulus effect of the proposal taken as a whole. This increase disappears by the end of the budget period, ranging from 0 percent to −0.4 percent. The acceleration of the individual tax rate reductions is effectively a temporary provision relative to present law; thus, the positive labor supply incentives are temporary.

A substantial portion of the tax cuts in the proposed growth package, those attributable to the acceleration of the individual income tax provisions in the Economic Growth and Tax Relief Reconciliation Act of 2001 (''EGTRRA''), and the bonus depreciation/NOL carryback combination are temporary (operating from 2003–2006), and therefore likely to result in modest demand stimulus primarily in the first five years in the myopic models. In the OLG stimulations, in which individuals foresee the temporary nature of the stimulus, the increase in consumption is spread across both periods.

3. BUDGETARY EFFECTS

When the macroeconomic effects of a change in tax policy are taken into account, estimates of the change in receipts due to the proposal may change. To the extent that a new policy changes the rate of growth of the economy, it is likely to change the amount of taxable income, which will have a ''feedback effect'' on receipts. In addition, by increasing the after-tax return on investments in capital that generate taxable income, a change in policy may shift investment from non-taxable or tax-favored sectors, such as the owner-occupied housing market, into the taxable sector, and thereby increase receipts. The model simulations indicate that the policy analyzed here is likely to result in more economic growth in the first five years than under current law, and hence results in less revenue loss than what is predicted using conventional revenue estimates. As the GDP growth declines in years 6–10, the revenue feedback also declines.

A change in policy, however, may result in inflation as well as real economic growth. Inflation causes increases in nominal revenues (revenues measured in current dollars), without necessarily increasing the purchasing power of the Federal government. Conventional budget analysis is conducted in nominal dollars. To the extent that this analysis applies equally to revenue and expenditure estimates, this practice provides a reasonably accurate picture of the effects of inflation on the Federal budget. However, the Joint Committee staff analyzes the effects of tax policy on receipts, but not spending. Reporting revenues due to inflation, without reporting the commensurate budget effects would present an inaccurate picture of the effects of the proposal on the entire deficit. Therefore, the Joint Committee staff provides budgetary analysis in real (inflation-adjusted), rather than nominal terms. Table 5 shows the percent revenue feedback relative to the conventional revenue estimate, in real terms.

Even when presented in real terms, revenue feedback analysis alone may provide an incomplete picture of the effects of tax policy on the Federal budget. To the extent that the policy results in a net decrease in Federal receipts, with no offsetting expenditure reductions, the policy results in an increase in the Federal deficit. Increases in the Federal deficit generate additional debt service costs.

To determine how changes in tax policy affect the ability of the government to meet its current and future obligations it is helpful to compare tax-induced changes in the deficit and GDP. If GDP is growing faster than the deficit, the fiscal situation is improving, whereas if the deficit is growing faster, the fiscal situation is worsening. If deficits are growing faster (slower) than GDP, then the ratio of Federal debt to GDP would increase (decrease), which implies that future generations would have less (more) income to consume and invest after making payments on the debt.

TABLE 5.—EFFECTS ON REAL REVENUES PERCENT FEEDBACK IN REAL REVENUES RELATIVE TO REAL CONVENTIONAL ESTIMATE

	Calendar Years	
	2003–08	2003–13
Neoclassical Growth Model:		
MEG—aggressive Fed reaction	9.8	3.6
MEG—neutral Fed reaction	27.5	23.4
Economic Model:		
GI Fed Taylor reaction function	16.1	11.8
Life Cycle Model With Forward Looking Behavior:		
OLG Reduced Government Spending in 2014	6.1	3.0
OLG Increased Taxes in 2014	5.8	2.6

Table 5 shows the relationship between the change in receipts generated using macroeconomic analysis, and the predicted change in receipts provided by a conventional revenue estimate. A positive percentage indicates the estimated revenue loss is less when macroeconomic effects are taken into account than when estimated using conventional methods. As the simulations indicate, depending on how much temporary demand stimulus is generated by the proposal, the revenue feedback could range from 5.8 percent to 27.5 percent in the first five years, and 2.6 percent to 23.4 percent over the ten-year budget period.

4. DATA SOURCES

All of the macroeconomic models used by the Joint Committee staff are based primarily on quarterly National Income and